

**Applicant: Martin Kreyenschmidt**  
**Serial No.: 09/763,280**  
**Group Art Unit: 1711**

### **REMARKS**

Claims 1-3 and 11 remain in this application with claim 1 being in independent form. Claim 1 has been amended and claims 4, 12 and 14-16 have been cancelled. There is full support in the specification as originally filed for these amendments. Accordingly, no new matter has been introduced through these amendments.

Applicant has cancelled claims 12 and 14-16. Therefore, the applicable §112 and §102(b) rejections are moot.

Claims 1-4 and 11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yukuta (United States Patent No. 4,303,755) in view of Hicks (GB 2,196,974). Claim 14 was not included in this §103 rejection and has been incorporated into claim 1. Therefore, this rejection is overcome and not discussed.

Furthermore, claims 1 and 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Woods (ICI Polyurethane Book) in view of Yukuta. The Examiner also contends that Woods discloses a typical mattress foam having the density claimed and formed by reacting polyisocyanates with isocyanate reactive ingredients in the presence of amine catalysts, additives, and blowing agents. Finally, the Examiner contends that it would have been obvious to one of ordinary skill in the art to add an anhydride to the foam composition of Woods to improve the foam stability.

Applicant has amended claim 1 to include the limitation of claim 14 of being directed toward a mattress and/or upholstery material and/or carpet material. However, claim 14 was previously rejected by the Examiner as being obvious under 35 U.S.C. §103. Therefore,

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Applicant argues that based upon the following analysis, the Examiner has failed to establish a *prima facie* case of obviousness under 35 U.S.C. §103 and claim 1, as amended, is allowable.

The law is adequately set forth in the Manual for Patent Examining Procedure (MPEP). When applying 35 U.S.C. §103, the following tenets of patent law must be adhered to: the claimed invention must be considered as a whole and the references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination. *Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986).

Further, in order to use a reference for a §103 rejection, it must be analogous prior art, as set forth at MPEP §2141.01(a). "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). 1985). In determining the differences between the prior art and the claims, the question under 35 U.S.C. §103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success.

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Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not be based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP '2143 - '2143.03 for decisions pertinent to each of these criteria.

As further clarified by the Court in *In re Sang Su Lee*, 277 F.3d 1338 (Fed. Cir. 2002), citing *Brown & Williamson Tobacco Corp. v. Phillip Morris, Inc.*, 229 F.3d 1120, 1124-25 (Fed. Cir. 2000), for a rejection of a claim under 35 U.S.C. § 103(a), it is required that there be some teaching or motivation found within the references themselves that would lead one of ordinary skill in the art to combine the references and, furthermore, that once combined the references must either disclose each and every limitation of the claim or make obvious any such limitations not disclosed. Absent a teaching or motivation within the references themselves for combining the references, it is improper for the Examiner to combine the references. *Id.*

The subject invention is directed toward a mattress and/or upholstery material and/or carpet material having a density of 20 to 70 kg/m<sup>3</sup>. The mattress and/or upholstery material and/or carpet material includes a flexible polyurethane foam made by reacting isocyanates with compounds which are reactive toward isocyanates in the presence of catalysts, blowing agents, additives and/or auxiliaries. The reaction is carried out in the presence of (ii) at least one organic or inorganic acid anhydride and at least one urethane forming catalyst selected from the group consisting of organic amines, excluding alkanolamines, and organic metal compounds. The subject invention provides the mattress and/or upholstery material and/or carpet material having an improved stability to the aging process, in particular to hydrolysis

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of the foam. Moreover, the subject invention is particularly useful in foams exposed to hot and humid conditions.

Claims 1 and 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Woods (ICI Polyurethane Book) in view of Yukuta. When considering Woods as a whole, it discloses a process for forming a slabstock polyurethane foam which, as known in the art, are stable foams. It does not include acid anhydride, nor does it produce foam that is unstable requiring additional additives such as acid anhydride. It is well known in the polyurethane art to make polyurethane foam from a slabstock process. Yukuta, which must be considered as a whole, discloses a safety fuel tank and a method of forming the safety fuel tank. The safety fuel tank is filled with a flexible polyurethane foam formed with acid anhydrides. Referring to Col. 3, lines 44-50, Yukuta adds the acid anhydride to improve the foaming stability and the air permeability of the foam while it is being produced. Yukuta is not directed toward extending the aging process of the foam. There is no teaching or motivation, explicitly or implicitly, as required by *In re Sang Su Lee*, to combine the acid anhydride from Yukuta with the slabstock polyurethane foam of Woods to produce a more stable foam that withstands the aging process.

Further, Yukuta is not analogous prior art as that of the subject invention. Safety fuel tanks made with flexible polyurethane foam disposed therein are not in the field of applicant's endeavor. Moreover, Yukuta was concerned with improving the foaming stability and the air permeability of the foam while it is being produced within the safety fuel tank and is not reasonably pertinent to the particular problem with which the applicant was concerned, as described above. Therefore, the Examiner improperly relies on Yukuta as a reference under §103.

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Finally, even if the references could be combined, each and every limitation of the subject invention is not taught nor suggested. Specifically, when combined, the references do not teach or suggest a mattress and/or upholstery material and/or carpet material comprising a flexible polyurethane foam having a density of 20 to 70 kg/m<sup>3</sup>. Furthermore, Yukata and Woods, either alone or in combination, do not teach or suggest forming the mattress, upholstery material, or carpet material from a foam made by reacting isocyanates with isocyanate reactive compounds in the presence of (ii) at least one organic or inorganic acid anhydride. Therefore, the §103 rejections are overcome and claims 1-3 and 11, as amended, are allowable.

Accordingly, it is respectfully submitted that the Application, as amended, is now presented in condition for allowance, which allowance is respectfully solicited. Applicant believes that no fees are due, however, if any become required, the Commissioner is hereby authorized to charge any additional fees or credit any overpayments to Deposit Account 08-2789. Further and favorable reconsideration of the outstanding Office Action is hereby requested.

Respectfully submitted

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